

A STUDY OF THE GENUS MENISCUS.

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*Synopsis of species.**

Abdomen entirely black or with white margins of segments.

Femora rufous or honey yellow.

Antennæ with yellowish annulus..... *Bethunei*, CR.

Antennæ without yellowish annulus.

Areolet present.

Abdominal segments without white margins.

Pleuræ more or less rufous, yellow spots before and
beneath tegulæ *scutellaris*, CR.Pleuræ black, a yellow spot before and beneath tegulæ
..... *superbus*, PROV.Pleuræ black, without spot before or beneath tegulæ
..... *parva*, CR.Abdominal segments margined with white... *pulcherrimus*, CR.

Arolet wanting.

Mesothorax more or less rufous..... *ostentator*, n. sp.Mesothorax black and yellow..... *mirabilis*, CR.Femora black, areolet present.. *Slossonæ*, n. sp.

Abdomen rufous, black at base.

Arolet present, antennæ without annulus.

Posterior femora black with yellow markings..... *elegans*, CR.Posterior femora rufous..... *comptus*, n. sp.Arolet wanting, antennæ with white annulus.. *Michiganensis*, n. sp.

Abdomen black, banded with yellow at base of segments.....

..... *Johnsonii*, n. sp.

MENISCUS OSTENTATOR, n. sp.

♀. Length, 7.5 mm.; ovipositor, 7 mm. Black, polished; with orbital lines from occiput to middle of eyes in front, cheeks, clypeus, mandibles except tip, palpi, gula, cuneiform lines on mesonotum, tegulæ, spot in front, lines beneath extending irregularly back to posterior coxæ, sides of scutellum, line on lower pleuræ between anterior and middle coxæ, prosternum, anterior coxæ, middle and posterior coxæ except a black dash above and large spot inside, all the trochanters except black

**Meniscus Ashmeadii*, PROV., and *M. marginatus*, PROV., belong to *Pimpla annulipes*.

base, posterior tibiæ except black annulus near base and black extremity, and tips of the abdominal segments beyond the first, yellowish-white. Remainder of legs fulvous, with a black spot at the base of all the femora and an annulus near the tip of the posterior femora; tarsi dusky. Antennæ long, slender, black. Wings hyaline, without areolet. Mesosternum and meso- and metapleuræ rufous. Metanotum smooth, oval, coarsely punctured, with one small circular transverse carina near the abdomen. First segment of the abdomen shining, 2 and 3 finely punctured. ♂ with the abdomen as in the ♀. The head is yellow except the central part of the vertex and occiput, which are black. Pronotum and a spot on the front edge of mesonotum, black; remainder of mesonotum rufous, with yellow markings as in the ♀; scutellum, pleuræ and venter, yellowish-white. Antennæ reddish-brown, with scape beneath yellow. Legs same as in ♀ except more yellow.

Described from 3 ♀♀ and 1 ♂ taken at the Michigan Agricultural College.

MENISCUS SLOSSONÆ, n. sp.

♀. Length, 12 mm.; ovipositor, 8 mm. Black, with lemon-yellow markings as follows: orbits, two more or less united longitudinal stripes on the front, cheeks at base of mandibles, mouth except tip of mandibles, tegulæ, minute spot beneath and dash in front, sometimes wanting, **V** on scutellum, post-scutellum, central spot on metanotum, tips of abdominal segments 1, 2 and 3, and sometimes base of the first. Legs yellow, with all the coxæ, and posterior legs with first joint of the trochanter, femora except tip and base, tibiæ except base, and tarsi, black. Antennæ black. Apex of wings infumated; areolet large, petiolate. Thorax and head coarsely and closely punctured, metanotum rough. Abdomen shining, smooth.

Described from 3 ♀ specimens collected at the top of Mount Washington, N. H., by Mrs. Annie Trumbull Slosson, to whom I take pleasure in dedicating this species.

MENISCUS COMPTUS, n. sp.

♀. Length, 8 mm.; ovipositor, 6 mm. Black, with abdomen beyond second segment rufous. Orbital lines nearly enclosing base of antennæ, face, except three short black dashes just beneath antennæ, mouth, gula, nearly all of prothorax, tegulæ, line beneath, long line in front confluent with triangular spot on mesonotum, spot in front of scutellum, scutellum

except a small wedge in front, post-scutellum, a large irregular diagonal spot on mesopleura, spot beneath posterior wing, circular spot just back and above, semicircle around insertion of abdomen with a ray extending forward from each coxa, and a third from the abdomen, base and apex of the first two abdominal segments, 4 anterior coxæ and trochanters, stripe on posterior coxæ above and second joint of posterior trochanter, yellowish-white. Posterior coxæ and first joint of trochanter black; posterior tarsi dusky at tips; remainder of legs honey-yellow. Antennæ black, fulvous toward the tip. Wings hyaline, infumated at the apex; areolet small, petiolate. Entire thorax coarsely, but not closely, punctured. Abdomen smooth, shining.

Described from 2 ♀♀ collected at the Michigan Agricultural College.

MENISCUS MICHIGANENSIS, n. sp.

♀. Length, 10 mm.; ovipositor, 8 mm. Black, with yellow markings; abdomen beyond second segment rufous. Broad orbital lines, entire front, scape beneath, annulus on antennæ, mouth except tips of mandibles, gula, entire prothorax, tegulæ, line beneath, large triangular spot in front confluent with a cuneiform line on mesonotum, extending back nearly to the scutellum, venter except anterior part of mesosternum, with a continuation of the same on to the pleuræ, ending in a large hook beneath the wings, metapleuræ and two lines above joining posteriorly, base, apex and a large spot in the centre of the first abdominal segment, base and apex of second segment, connected by a longitudinal line, lemon-yellow. Posterior femora rufous; 4 posterior trochanters black at base, and coxæ with black stripe above; 2 hind coxæ black inside; extremity of posterior tibiæ, and basal joint of tarsi, except tip, black; remainder of legs lemon-yellow. Wings hyaline without areolet. Antennæ brown, black above. Thorax and face coarsely, but not closely, punctured. Abdomen smooth, shining.

Described from 1 ♀ taken at the Michigan Agricultural College.

? MENISCUS JOHNSONII, n. sp.

♀. Length, 11 mm.; ovipositor, 1.5 mm. Black, with yellowish-white markings, as follows: Entire head, except occiput, spot enclosing ocelli and antennæ, narrow central line beneath, reaching to clypeus, and tips of mandibles; prosternum; mesothorax with two cuneiform lines on margins of mesonotum, two stripes in front of scutellum, scutellum except posterior part and spot in front, two spots beneath primary wings and

another in front of middle coxæ, posterior part of mesosternum; metathorax with a transverse row of 5 spots across the anterior part and 3 across the posterior part; abdomen with first segment to spiracles and a short line in centre beyond, broad band at base of second and third segments, narrower band at base of succeeding segments and entire venter. Antennæ wanting. Legs honey-yellow, except 4 anterior coxæ beneath, which are whitish, joints 3, 4 and 5 of middle tarsi, which are dusky, and apical third of posterior tibiæ and basal fourth of first tarsal joint, which are black. Wings hyaline, somewhat infumated around the apical margin; areolet wanting. Entire thorax punctured, metanotum rugose. Abdomen somewhat clavate, smooth and polished.

Owing to the short ovipositor and shape of abdomen, this species will probably belong to a new genus, and is only temporarily placed here.

Described from 1 specimen taken at Jamesburg, New Jersey, by Mr. Chas. W. Johnson, to whom I take pleasure in dedicating this species, as a slight token of thanks for the many valuable specimens of Ichneumonidæ sent me.

NEW SPECIES OF TENTHREDINIDÆ, WITH TABLES OF THE SPECIES OF STRONGYLOGASTER AND MONECTENUS.

BY ALEX. D. MACGILLIVRAY, ITHACA, N. Y.

The following descriptions are offered, preparatory to publishing a list of the saw-flies of the Upper Cayuga Lake Fauna. The types are in the Entomological Collection of Cornell University.

CALIROA, Costa.

Caliroa Nortonia, n. sp. Body entirely black, head finely, densely punctate, clypeus emarginate, antennæ black, broad, of the same width throughout, third segment one-third longer than fourth, fourth and fifth subequal in length, sinus each side of the ocelli reaching the back of the head, from each side of the lateral sinuses there is another sinus starts off behind the posterior ocelli, crossing back of the median ocellus and running down each side of this ocellus for a short distance, where it becomes obsolete; tegulæ and collar very narrowly dull white, thorax and abdomen glossy black; legs white, coxæ, trochanters, basal half anterior and basal two-thirds of middle and posterior femora black,